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ABSTRACT

Two types of items used in student evaluations of college teaching were compared: high-inference items, which require considerable inferring from what is seen or heard in the classroom to labelling of teacher behavior; and moderate-inference items, such as "teacher listens carefully." Two instruments were administered to random halves of five undergraduate marketing classes; one consisted of 20 high-inference items that had consistently loaded on five factors, and the second contained eight high-inference and 10-20 moderate-inference items. The second instrument contained items that were specific to the individual class situations. Item variability, between classes and within classes, was examined. Results indicated that there was no significant difference between the general scale (the Student Instructional Rating System) and the class-specific scale. Although the data were not conclusive, it was suggested that moderate-inference items were more accurate for evaluating instruction than high-inference items. (Analyses of students' satisfaction with the class-specific questionnaire and the class means for each set of items are included, as well as six different rating forms). (GDC)

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A COMPARISON OF TWO STUDENT INSTRUCTIONAL RATING FORMS UTILIZING HIGH-INFERENCE VERSUS MODERATE INFERENCE ITEMS

Presented at A.E.R.A.
April, 1979

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INTRODUCTION

Student ratings of instruction have received increased interest in recent years. A significant amount of energy has been expended on what type of items are appropriate for evaluating instruction. Item types range from those that are of a broad, general nature and require much inference on the part of the reader to those items which require the observer to classify teaching behaviors according to relatively objective categories.

OBJECTIVE

The objective of this study is to compare two different types of items used for evaluation of instruction. The one item type is what Rosenshine (1970) would refer to as a high-inference item. These high-inference items require considerable inferring from what is seen or heard in the classroom to ratings of the teachers. The second item type is moderate-inference items and refers to such items as "teacher listens carefully," and "teacher criticizes."

THEORETICAL FRAMEWORK

As early as 1970 Rosenshine (1970) discussed high-inference and low-inference measures as a system useful for evaluating instruction. He broke types into two categories following a convention previously used by Ackerman (1954) and Gage (1969). The convention uses "inference" to refer to the process intervening between the objective data seen or heard and the judgement concerning a higher order construct of cognitive or social interaction. High inference measures are those which require considerable inferring from what is seen or heard in the classroom to the labelling of behavior, such as ratings of the teacher on such scales as "partial-fair," and "duel-stimulating." Low-inference measures are those which require the observer to classify teaching behaviors

according to relatively objective categories. Examples of these behaviors are very quantifiable, such as words per minute, and movements per minute. Items somewhere between high-inference and low-inference would be labelled moderate-inference and refer to such items as "teacher listens carefully" and "teacher criticizes."

High-inference and moderate-inference items are of the type generally found on student rating forms. Low-inference items are better suited for teacher training programs where behaviors can be translated into specific behaviors.

METHOD

Two instruments were needed in order to make the necessary comparisons. One of the instruments was a general high-inference instrument that had been used at the university for sometime. This instrument (Office of Evaluation Services, 1970) consisted of twenty high-inference items that have constantly loaded on five factors (See Figure 1). The comparison instrument was developed for five specific classes in one department (See Figure 2-6). The comparison instrument contained eight high-inference items and 10-20 moderate-inference items specific to individual class situations. Both instruments were given to random halves of the five classes under consideration.

A good instructional rating scale would discriminate between good and poor instruction, and have unambiguous questions on which raters could be in agreement on for each instructor. In terms of item variability, the better of two evaluation instruments would have less variability on a particular item in a given class. It would also be expected that variability exists on a particular item between classes. This latter variability could only be computed for items that appear on more than one specific evaluation instrument.

A comparison of the high-inference and moderate-inference items were made by use of the above variances. The item variability within classes for each instrument was tested by the Mann-Whitney U test statistic. Although no statistical test was available to test the between class variability, tables were useful in displaying the variances of interest.

DATA SOURCE

The data base for the present study was made up of five undergraduate classes in the Marketing Department at Michigan State University ($n \sim 400$). Even though it was necessary for the instructors to volunteer their services, it should be noted that the selection was made so that the classes were diverse. The courses varied according to class size, lecture versus discussion, qualitative versus quantitative, and inclusion or exclusion of recitation sections.

RESULTS

In order to test the assumption that the class specific instrument would be of a more psychometrically sound nature the following two hypotheses were tested:

H_1: For each class, the item variance of the tailored items in the class specific instrument is less than the item variance of the items in the SIRS (name used to refer to the general instrument).

H_2: The between class variability of tailored items shared by two or more of the class specific instruments is greater than the between class variability of items on the SIRS.

Hypothesis 1. It was necessary to make 5 comparisons in this situation. A comparison between the variances of the tailored items (term used to refer

to items in the class specific form) and the twenty general items on the general instrument was made for each class. The Mann-Whitney U Test is the most appropriate test in this instance because it is capable of testing whether two independent samples were drawn from the same population. The test will give information about whether the distribution of variances for the two evaluation instruments are the same. Because there were twenty variances in the general instrument and a range of fourteen (MTA 317) to twenty-two (MTA 311, Section 2) variances in the specific form the normal approximation to the Mann-Whitney U was utilized. Table 1 lists the decisions made at an $\alpha = .05$ level of significance for each of the five classes.

The results were not of a conclusive nature. In three of the classes (MTA 311, Section 2, MTA 313, MTA 317) the null hypothesis was accepted. This acceptance decision can be interpreted as the distribution of variances of the class specific and SIRS instruments being the same. Two instances occured in which the null hypothesis was rejected; in MTA 311, Section 1 it could be inferred that the class specific distribution of variances was larger than the SIRS distribution of variances. The second rejection decision involved MTA 341, the inferences are reversed with the class specific distribution of variances being smaller than the SIRS distribution of variances.

Because of the inconsistent results, it was interesting to delve further into the data and calculate the average variance for each instrument in each class. The average variances were computed for the first twenty items on the SIRS and the tailored items on the class specific instruments. These variances are listed in Table 2. It is interesting

to note that in only one case was the class specific average variance greater than the SIRS average variance. In the four other classes, the average variance of the class specific form was equal to or smaller than the average variance of the general instrument.

Hypothesis 2. To test this hypothesis it was necessary to calculate an index for between class variability. The following formula was utilized:

$$S^2 = \frac{\Sigma(x_i - \bar{x}_i)^2}{n-1}$$

where: x_i = mean on item i for a particular class

$\bar{x}_i$ = mean of all the means on item i

n = # of classes using item i

This index was easy to tabulate for the general instrument since it remains the same for all classes. Therefore, a between class variability index can be computed for all twenty general items in the general instrument. These indexes can be viewed in Table 3.

To tabulate a between class variability index for the class specific instruments, it was necessary to isolate specific items used on more than one form. Two items are common to three class specific forms, three items are common to six class specific forms, four items are common to four class specific forms, and five items are common to four class specific forms. Twenty-two items are unique to only one class specific form. Table 4 lists a short description of the item and gives the associated index of between class variability. The average of the variances for the specific instrument is .110, slightly larger than the general instrument's average variance of .099.

The Mann-Whitney U statistic was then calculated to test for any differences between the two distributions of variances displayed in Tables 3 and 4. The results were to accept the null hypothesis of no difference at the $\alpha = .05$ level of significance.

Even though neither of the above hypotheses were rejected it is interesting to look at the trends of the data. In four out of five classes the average item variance of the moderate-inference items was equal to or less than the average item variance of the high-inference items. The average between class variability for moderate-inference items was larger than the average between class variability for the high-inference items. Both of these results lend support to the hypothesis that moderate-inference items are more accurate for evaluating instruction than high inference items. Therefore, even though the study did not obtain statistical significance the trends of the data were certainly in the expected direction. It is also important to note that the newly developed class specific instrument was being compared to a general instrument that had many years of research invested in its development.

Other results - 1. A satisfaction item was included in each class specific instrument to determine the student's reactions to the new instrument. The results of this item can be viewed in Table 5.

Other results - 2. In a perusal of the class means for each set of items another point of interest surfaced. The grand mean of all the item means for each class is presented in Table 6, using a letter representation for each class. Each grand mean for the general instrument consisted of twenty

items. However, the number of item means used in the class specific instrument varied, and only the tailored items were used to calculate the grand mean. If the instructors were to be rank ordered according to the grand mean of each evaluation instrument, the rank orders would not remain constant. The rank orders of the grand mean for the SIRS instrument are:

Rank	Class
1	B
2	E
3	C
4	D
5	A

The rank orders for the class specific form are:

Rank	Class
1	C
2	B
3	E
4	D
5	A

Educational Importance

Beyond the cut and dry statistical evidence is the obvious fact that the forms built for this study contain more information than the general instrument. Nothing has been lost in these new forms but much new information has been acquired. Items referring to textbooks, exams, the usefulness of learned information in the real world, the ability to apply facts to other problems and many more. The general items on which comparisons can be made between all classes are still available plus items that rate instructor or course characteristics specific to an individual class. These class specific items are not only useful for an administrator in evaluating an instructor for tenure or promotion, but also prove helpful to an instruc-

tor for self improvement. The fact that general items are high inference in nature makes them of little use in course improvement.

Further Research

The inconsistency of instructor ranks' that arose for mean ratings on differing item types was of great interest. A larger sample is needed to determine if the difference in rankings is anomalous to the present study or generalizable to future research.

FIGURE 1

MICHIGAN STATE UNIVERSITY
STUDENT INSTRUCTIONAL RATING SYSTEM FORM
Form B

One way in which a teacher can improve his or her class is through thoughtful student reactions. This instructor hopes to use your responses for self-examination and self-improvement.

Please omit any of the items which do not pertain to the course that you are rating. For example, if you have had no homework assignments in this course omit (leave blank) those items pertaining to homework. With a pencil respond to the items using the KEY.

S-SUPERIOR: exceptionally good course or instructor.
AA-ABOVE AVERAGE: better than the typical course or instructor.
AV-AVERAGE: typical of courses or instructors
BA-BELOW AVERAGE: not as good as the typical course or instructor.
I-INFERIOR: exceptionally poor course or instructor.

		KEY	S	AA	AV	BA	I
1.	The instructor's enthusiasm when presenting course material.	1.	S	AA	AV	BA	I
2.	The instructor's interest in teaching.	2.	S	AA	AV	BA	I
3.	The instructor's use of examples or personal experiences to help get points across in class.	3.	S	AA	AV	BA	I
4.	The instructor's concern with whether the students learned the material.	4.	S	AA	AV	BA	I
5.	Your interest in learning the course material.	5.	S	AA	AV	BA	I
6.	Your general attentiveness in class.	6.	S	AA	AV	BA	I
7.	The course as an intellectual challenge.	7.	S	AA	AV	BA	I
8.	Improvement in your competence in the area due to this course.	8.	S	AA	AV	BA	I
9.	The instructor's encouragement to students to express opinions.	9.	S	AA	AV	BA	I
10.	The instructor's receptiveness to new ideas and others' viewpoints.	10.	S	AA	AV	BA	I
11.	The student's opportunity to ask questions.	11.	S	AA	AV	BA	I
12.	The instructor's stimulation of class discussion.	12.	S	AA	AV	BA	I
13.	The appropriateness of the amount of material the instructor attempted to cover.	13.	S	AA	AV	BA	I
14.	The appropriateness of the pace at which the instructor attempted to cover the material.	14.	S	AA	AV	BA	I
15.	The contribution of homework assignments to your understanding of the course material relative to the amount of time required.	15.	S	AA	AV	BA	I
16.	The appropriateness of the difficulty of assigned reading topics.	16.	S	AA	AV	BA	I
17.	The instructor's ability to relate the course concepts in a systematic manner.	17.	S	AA	AV	BA	I
18.	The course organization.	18.	S	AA	AV	BA	I
19.	The ease of taking notes on the instructor's presentation.	19.	S	AA	AV	BA	I
20.	The adequacy of the outlined direction of the course.	20.	S	AA	AV	BA	I
21.	Your general enjoyment of the course.	21.	S	AA	AV	BA	I
	Student Background						
22.	Was the course required in you degree program?	22.	yes		no		
23.	What is your sex?	23.	M		F		
24.	What is your overall GPA? (a) 1.9 or less (b) 2.0-2.2 (c) 2.3-2.7 (d) 2.8-3.3 (e) 3.4-4.0	24.	a	b	c	d	e
25.	What is your class level? (a) Freshman (b) Sophomore (c) Junior (d) Senior (e) Graduate or other	25.	a	b	c	d	e

10-A

FIGURE 2

STUDENT INSTRUCTIONAL RATING FORM
MTA 311
SECTION 1

For each item, respond by circling the number in the key that corresponds to the closest description of your instructor or your course. If you lack the necessary information to respond to any items, please omit the items.

1. Superior: exceptionally good instructor or course.
2. Above average: better than the typical instructor or course.
3. Average: Typical instructor or course.
4. Below average: worse than the typical instructor or course.
5. Inferior: exceptionally poor instructor or course.

	KEY
1. The instructor seemed to be interested in teaching.	1. 1 2 3 4 5
2. The instructor seemed to be concerned with whether the students learned the material.	2. 1 2 3 4 5
3. Your interest in learning the course material.	3. 1 2 3 4 5
4. Your competence in this area due to this course.	4. 1 2 3 4 5
5. The instructor's attempted coverage of the course material.	5. 1 2 3 4 5
6. The speed used by the instructor in presenting course material.	6. 1 2 3 4 5
7. The manner used by the instructor in relating course concepts.	7. 1 2 3 4 5
8. The course organization.	8. 1 2 3 4 5
9. The instructor's willingness to spend extra time with you.	9. 1 2 3 4 5
10. The instructor's availability during office hours.	10. 1 2 3 4 5
11. The instructor's relationship of course material to everyday life.	11. 1 2 3 4 5
THE COURSE'S CONTRIBUTION TO YOUR:	
12. Understanding of the day to day workings of a field representative.	12. 1 2 3 4 5
13. Obtainment of a general knowledge in the field.	13. 1 2 3 4 5
14. Understanding of concepts and principles in the field.	14. 1 2 3 4 5
15. Ability to communicate clearly on the subject.	15. 1 2 3 4 5
16. Ability to solve real problems in the field.	16. 1 2 3 4 5
FOR THIS COURSE:	
17. Appropriateness of the text.	17. 1 2 3 4 5
18. Appropriateness of instructional materials.	18. 1 2 3 4 5
19. Beneficialness of homework assignments.	19. 1 2 3 4 5
20. Appropriateness of the exam format.	20. 1 2 3 4 5
21. Appropriateness of the amount of time given to group projects.	21. 1 2 3 4 5
22. Organization of lecture material.	22. 1 2 3 4 5
23. Appropriateness of material covered on the exams.	23. 1 2 3 4 5
24. Applicability of group projects to real life situations.	24. 1 2 3 4 5
25. Sharing of group work by group members.	25. 1 2 3 4 5
STUDENT BACKGROUND: Select the most appropriate alternative.	
26. Was this course required in your degree program?	26. Yes No
27. What is your sex?	27. M F
28. What is your overall GPA? (1) 1.9 or less (2) 2.0-2.2 (3) 2.3-2.7 (4) 2.8-3.3 (5) 3.4-4.0	28. 1 2 3 4 5
29. What is your class level? (1) Freshman (2) Sophomore (3) Junior (4) Senior	29. 1 2 3 4 5
30. In comparing this rating form with other rating forms you have responded to at MSU, do you find it: (1) Superior (2) Above Average (3) Average (4) Below Average (5) Inferior	30. 1 2 3 4 5

FIGURE 3
STUDENT INSTRUCTIONAL RATING FORM
MTA 311
SECTION 2

For each item, respond by circling the number in the key that corresponds to the closest description of your instructor of your course. If you lack the necessary information to respond to any items, please omit the items.

1. Superior: exceptionally good instructor or course.
2. Above Average: better than the typical instructor or course.
3. Average: typical instructor or course.
4. Below Average: worse than the typical instructor or course.
5. Inferior: exceptionally poor instructor or course

1.	The instructor seemed to be interested in teaching.	1. 1 2 3 4 5
2.	The instructor seemed to be concerned with whether the students learned the material.	2. 1 2 3 4 5
3.	Your interest in learning the course material.	3. 1 2 3 4 5
4.	Your competence in this area due to this course.	4. 1 2 3 4 5
5.	The instructor's attempted coverage of the course material.	5. 1 2 3 4 5
6.	The speed used by the instructor in presenting course material.	6. 1 2 3 4 5
7.	The manner used by the instructor in relating course concepts.	7. 1 2 3 4 5
8.	The course organization.	8. 1 2 3 4 5
THE INSTRUCTOR'S:		
9.	Encouragement to students to express opinions.	9. 1 2 3 4 5
10.	Receptiveness to new ideas and other's viewpoints.	10. 1 2 3 4 5
11.	Stimulation of class discussion.	11. 1 2 3 4 5
12.	Willingness to spend extra time with you.	12. 1 2 3 4 5
13.	Relationship of course material to everyday life.	13. 1 2 3 4 5
14.	Integration of reading material.	14. 1 2 3 4 5
THE COURSE'S CONTRIBUTION TO YOUR:		
15.	Understanding of the day to day workings of a field representative.	15. 1 2 3 4 5
16.	Obtainment of general knowledge in the field.	16. 1 2 3 4 5
17.	Understanding of concepts and principles in the field.	17. 1 2 3 4 5
18.	Ability to communicate clearly on the subject.	18. 1 2 3 4 5
19.	Ability to solve real problems in the field.	19. 1 2 3 4 5
FOR THIS COURSE:		
20.	Appropriateness of the text.	20. 1 2 3 4 5
21.	Appropriatness of instructional materials.	21. 1 2 3 4 5
22.	Beneficialness of homework assignments.	22. 1 2 3 4 5
23.	Appropriateness of exam format.	23. 1 2 3 4 5
24.	Organization of lecture material.	24. 1 2 3 4 5
25.	Appropriateness of conference leadership technique.	25. 1 2 3 4 5
26.	Interaction among group members in conference leadership group.	26. 1 2 3 4 5
27.	Beneficialness of group discussions.	27. 1 2 3 4 5
28.	Appropriateness of amount of time spent on conference leadership technique	28. 1 2 3 4 5
29.	Appropriateness of proportion of final grade accounted for by conference leadership technique.	29. 1 2 3 4 5
30.	Appropriateness of material covered on exams.	30. 1 2 3 4 5
STUDENT BACKGROUND:		
31.	Was this course required in your degree program?	31. Yes No
32.	What is your sex?	32. M F
33.	What is your overall GPA? (1) 1.9 or less (2) 2.0-2.2 (3) 2.3-2.7 (4) 2.8-3.3 (5) 3.4-4.0	33. 1 2 3 4 5
34.	What is your class level? (1) Fresh (2) Soph (3) Junior (4) Senior	34. 1 2 3 4 5
35.	In comparing this rating form with other rating forms you have responded to at MSU, do you find it (1) Superior (2) Above Average (3) Average (4) Below Average (5) Inferior	35. 1 2 3 4 5

FIGURE 4

STUDENT INSTRUCTIONAL RATING FORM
MTA 313

For each item, respond by circling the number in the key that corresponds to the closest description of your instructor or your course. If you lack the necessary information to respond to any item, please omit the items.

1. Superior: exceptionally good instructor or course.
2. Above Average: better than the typical instructor or course.
3. Average: typical instructor or course.
4. Below Average: worse than the typical instructor or course.
5. Inferior: exceptionally poor instructor or course.

	KEY				
1. The instructor seemed to be interested in teaching.	1. 1	2	3	4	5
2. The instructor seemed to be concerned with whether the students learned the material.	2. 1	2	3	4	5
3. Your interest in learning the course material.	3. 1	2	3	4	5
4. Your competence in this area due to this course.	4. 1	2	3	4	5
5. The instructor's attempted coverage of the course material.	5. 1	2	3	4	5
6. The speed used by the instructor in presenting course material.	6. 1	2	3	4	5
7. The manner used by the instructor in relating course concepts.	7. 1	2	3	4	5
8. The course organization.	8. 1	2	3	4	5
9. The instructor's encouragement of students to express opinions.	9. 1	2	3	4	5
10. The instructor's receptiveness to new ideas and others viewpoints.	10. 1	2	3	4	5
11. The instructor's general stimulation of class discussion.	11. 1	2	3	4	5
12. The instructor's clarification of the relationship between course material and everyday life.	12. 1	2	3	4	5
13. The instructor's help in improving my problem solving ability.	13. 1	2	3	4	5
14. The instructor's grading procedure.	14. 1	2	3	4	5
15. The appropriateness of the case text.	15. 1	2	3	4	5
16. The appropriateness of cases.	16. 1	2	3	4	5
17. The appropriateness of group discussion for further understanding of course concepts.	17. 1	2	3	4	5
THE COURSE'S CONTRIBUTION TO YOUR:					
18. General knowledge in the field.	18. 1	2	3	4	5
19. Understanding of concepts and principles in the field.	19. 1	2	3	4	5
20. Ability to apply principles to new situations.	20. 1	2	3	4	5
21. Ability to communicate clearly on this subject.	21. 1	2	3	4	5
22. Ability to solve real problems in the field.	22. 1	2	3	4	5
23. Ability to organize ideas.	23. 1	2	3	4	5
24. Ability to apply particular case ideas to general situations.	24. 1	2	3	4	5
STUDENT BACKGROUND: Select the most appropriate alternative.					
25. Was this course required in your degree program	25.	YES		NO	
26. What is your sex	26.	M		F	
27. What is your overall GPA? (1) 1.9 or less, (2) 2.0-2.2, (3) 2.3-2.7, (4) 2.8-3.3, (5) 2.4-4.0	27. 1	2	3	4	5
28. What is your class level? (1) Freshman, (2) Sophmore (3) Junior, (4) Senior	28. 1	2	3	4	5
29. In comparing this rating form with other rating forms you have responded to at MSU, do you find it: (1) Superior, (2) Above Average, (3) Average, (4) Below Average, (5) Inferior	29. 1	2	3	4	5

FIGURE 5
STUDENT INSTRUCTIONAL RATING FORM
MTA 315

For each item, respond by circling the number in the key that corresponds to the closest description of your instructor or your course. If you lack the necessary information to respond to any items, please omit the items.

1. Superior: exceptionally good instructor or course.
2. Above Average: better than the typical instructor or course.
3. Average: typical instructor or course.
4. Below Average: worse than the typical instructor or course.
5. Inferior: exceptionally poor instructor or course

	KEY
1. The instructor seemed to be interested in teaching	1. 1 2 3 4 5
2. The instructor seemed to be concerned with whether the students learned the material.	2. 1 2 3 4 5
3. Your interest in learning the course material.	3. 1 2 3 4 5
4. Your competence in this area due to this course.	4. 1 2 3 4 5
5. The instructor's attempted coverage of the course material.	5. 1 2 3 4 5
6. The speed used by the instructor in presenting course material.	6. 1 2 3 4 5
7. The manner used by the instructor in relating course concepts.	7. 1 2 3 4 5
8. The course organization.	8. 1 2 3 4 5
9. The instructor's willingness to spend extra time with you.	9. 1 2 3 4 5
10. The instructor's availability during office hours.	10. 1 2 3 4 5
11. The instructor's clarification of the relationship between the course material and the real world.	11. 1 2 3 4 5
THIS COURSE CONTRIBUTED TO:	
12. Improving my problem solving abilities.	12. 1 2 3 4 5
13. An understanding of concepts and principles in the field.	13. 1 2 3 4 5
14. My ability to communicate clearly on the subject.	14. 1 2 3 4 5
15. My ability to solve real problems in the field.	15. 1 2 3 4 5
16. Preparing me for the material covered on the tests.	16. 1 2 3 4 5
FOR THIS COURSE:	
17. Conduciveness of classroom atmosphere to learning.	17. 1 2 3 4 5
18. Appropriateness of the required text.	18. 1 2 3 4 5
19. Beneficialness of written homework assignments.	19. 1 2 3 4 5
20. Beneficialness of supplementary texts.	20. 1 2 3 4 5
21. Appropriateness of testing format.	21. 1 2 3 4 5
22. Beneficialness of homework answers and calculations on reserve.	22. 1 2 3 4 5
FOR THE RECITIATION SECTION.	
23. Clarification of course material.	23. 1 2 3 4 5
24. Appropriateness of per cent of grade allotted to recitation.	24. 1 2 3 4 5
25. Usefulness of quizzes for exam preparation.	25. 1 2 3 4 5
26. Ability of recitation instructor to answer questions.	26. 1 2 3 4 5
27. Adequacy in covering written homework assignments.	27. 1 2 3 4 5
28. Please circle the number corresponding to your recitation section.	28. 1 2 3 4 5 6 7 8 9
STUDENT BACKGROUND: Select the most appropriate alternative.	
29. Was this course required in your degree program?	29. Yes No
30. What is your sex?	30. M F
31. What is your overall GPA? (1) 1.9 or less, (2) 2.0-2.2, (3) 2.3-2.7, (4) 2.8-3.3 (5) 3.4-4.0	31. 1 2 3 4 5
32. What is your class level? (1) Freshman (2) Sophomore (3) Junior (4) Senior	32. 1 2 3 4 5
33. In comparing this rating form with other rating forms you have responded to at MSU, do you find it: (1) Superior, (2) Above Average, (3) Average, (4) Below Average, (5) Inferior	33. 1 2 3 4 5

FIGURE 6
STUDENT INSTRUCTIONAL RATING FORM
MTA 341

For each item, respond by circling the number in the key that corresponds to the closest description of your instructor or your course. If you lack the necessary information to respond to any item, please omit the items.

1. Superior: exceptionally good instructor or course.
2. Above Average: better than the typical instructor or course.
3. Average: typical instructor or course.
4. Below Average: worse than the typical instructor or course.
5. Inferior: exceptionally poor instructor or course

	KEY
1. The instructor seemed to be interested in teaching.	1. 1 2 3 4 5
2. The instructor seemed to be concerned with whether the students learned the material.	2. 1 2 3 4 5
3. Your interest in learning the course material.	3. 1 2 3 4 5
4. Your competence in this area due to this course.	4. 1 2 3 4 5
5. The instructor's attempted coverage of the course material.	5. 1 2 3 4 5
6. The speed used by the instructor in presenting course material.	6. 1 2 3 4 5
7. The manner used by the instructor in relating course concepts.	7. 1 2 3 4 5
8. The course organization.	8. 1 2 3 4 5
THE INSTRUCTOR'S:	
9. Use of handouts.	9. 1 2 3 4 5
10. Relation of course material to everyday experiences.	10. 1 2 3 4 5
11. Encouragement of students to express opinions.	11. 1 2 3 4 5
12. Receptiveness to new ideas and other's viewpoints.	12. 1 2 3 4 5
13. General stimulation of class discussion.	13. 1 2 3 4 5
14. Use of real life examples.	14. 1 2 3 4 5
15. Emphasis of important points.	15. 1 2 3 4 5
16. Willingness to spend extra time with you.	16. 1 2 3 4 5
17. Availability during office hours.	17. 1 2 3 4 5
THE COURSE'S CONTRIBUTION TO YOUR:	
18. Obtainment of general knowledge in the field.	18. 1 2 3 4 5
19. Understanding of concepts and principles in the field.	19. 1 2 3 4 5
20. Ability to communicate clearly on the subject.	20. 1 2 3 4 5
FOR THIS COURSE:	
21. Appropriateness of texts.	21. 1 2 3 4 5
22. Appropriateness of exam format.	22. 1 2 3 4 5
23. Appropriateness of material covered on the exam.	23. 1 2 3 4 5
24. Organization of lecture material.	24. 1 2 3 4 5
25. Beneficialness of homework assignments.	25. 1 2 3 4 5
STUDENT BACKGROUND: Select the most appropriate alternative.	
26. Was this course required in your degree program?	26. Yes No
27. What is your sex?	27. M F
28. What is your overall GPA? (1) 1.9 or less (2)2.0-2.2 (3) 2.3-2.7 (4) 2.8-3.3 (5) 3.4-4.0	28. 1 2 3 4 5
29. What is your class level? (1) Freshman (2) Sophomore (3) Junior (4) Senior	29. 1 2 3 4 5
30. In comparing this rating form with other rating forms you have responded to at MSU, do you find it: (1) Superior, (2) Above Average (3) Average, (4) Below Average, (5) Inferior	30. 1 2 3 4 5

TABLE 1

COMPARISON OF VARIANCE DISTRIBUTIONS

SPECIFIC VS GENERAL INSTRUMENT

MANN-WHITNEY U

$\alpha = .05$

CLASS	DECISION	DIRECTION OF DIFFERENCE IF DECISION = REJECT
MTA 311, Section 1	Reject H_o:	Specific > General
MTA 311, Section 2	Accept H_o:	
MTA 313	Accept H_o:	
MTA 317	Accept H_o:	
MTA 341	Reject H_o:	General > Specific

TABLE 2

AVERAGE VARIANCES FOR
CLASS SPECIFIC AND GENERAL INSTRUMENTS

CLASS	AVERAGE VARIANCE		NUMBER OF ITEMS	
	Class Specific	General	Class Specific	General
MTA 311, Sec. 1	.78	.49	17	20
MTA 311, Sec. 2	.67	.67	22	20
MTA 313	.49	.55	16	20
MTA 317	.71	.73	14	20
MTA 341	.64	.69	17	20

TABLE 3

GENERAL SIRS FORM

INDEX OF BETWEEN CLASS VARIABILITY

Item	Between Class Variability
1	.101
2	.031
3	.297
4	.014
5	.079
6	.122
7	.243
8	.061
9	.096
10	.116
11	.096
12	.207
13	.042
14	.047
15	.082
16	.024
17	.118
18	.087
19	.107
20	.028
Average Variance	= .099

TABLE 4

CLASS SPECIFIC INSTRUMENT

INDEX OF BETWEEN CLASS VARIABILITY

Item Description	# of instruments item included on	Between Class Variability
THE INSTRUCTOR:		
1. Spends extra time with you	4	.148
2. Is available during office hours	3	.145
3. Relates course material to everyday life	5	.158
4. Encourages students to express opinions	3	.117
5. Is receptive to new ideas and other's viewpoints	3	.196
6. Generally stimulates class discussion	3	.226
THE COURSE'S CONTRIBUTION TO YOUR:		
7. Understanding of day to day working of a field representative	2	.186
8. Obtainment of general knowledge in the field	4	.047
9. Understanding of concepts and principles in the field	5	.057
10. Improving problem solving abilities	2	.090
11. Ability to communicate clearly on the subject	5	.237
12. Ability to solve real problems in the field	4	.068
FOR THIS COURSE:		
13. Appropriateness of text	5	.072
14. Appropriateness of instructional material	2	.008
15. Appropriateness of homework	4	.065
16. Appropriateness of exam format	4	.071
17. Organization of lecture material	3	.059
18. Appropriateness of exam content	3	.022
	Average Variance =	.110

TABLE 5

FREQUENCY OF RESPONSES TO THE SATISFACTION ITEM
IN THE CLASS SPECIFIC INSTRUMENT

Item: In comparing this rating form with other rating forms you have responded to at MSU, do you find it:

(1) Superior
(2) Above Average
(3) Average
(4) Below Average
(5) Inferior

Class	Response Option (1)	(2)	(3)	(4)	(5)
MTA 311, Sec. 1	2	15	19	1	1
MTA 311, Sec. 2	2	14	4	0	0
MTA 313	0	5	7	0	0
MTA 317	23	46	16	2	1
MTA 341	1	6	11	1	0

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